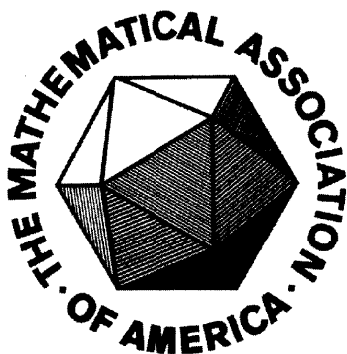


NORTHEASTERN SECTION



NEWSLETTER

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Web Page:

<http://www.maa.org/northeastern>

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NEXT SECTION MEETING

November 21 and 22, 2008

Fall Section Meeting

Bentley College, Waltham, MA

Program Chair: Ann Trenk, Wellesley College

Local Chair: Rick Cleary, Bentley University

FUTURE SECTION MEETINGS

May 29 and 30, 2008

Spring Section Meeting

Fairfield University, Fairfield, CT

Fall 2009: Western New England College, Springfield, MA

Spring 2010: Salve Regina University, Newport, RI

Fall 2010: Providence College, Providence, RI

OTHER ACTIVITIES

November 21, 2008

Section NExT Meeting

Bentley College, Waltham, MA

COORDINATORS

Dinner Meetings:	Lucy Kimball lkimball@LNMTA.bentley.edu
NES/MAA Distinguished Teaching Award:	Tommy Ratliff, Wheaton College tratliff@wheatonma.edu
Section Project NExT:	Karen Stanish, Keene State College kstanish@keene.edu
New Colleagues Talks:	Chris Aubuchon, Johnson State College aubuchoc @ badger.jsc.vsc.edu Phil Hotchkiss, Western New England College PHOTCHKISS@wsc.ma.edu
Undergraduate Papers:	Raimundo Kovac, Rhode Island College rkovac@ric.edu Karen Stanish, Keene State College kstanish@keene.edu
Graduate Papers:	Sarah Mabrouk, Framingham State College smabrouk@frc.mass.edu
Contributed Papers:	Rob Poodiack, Norwich University rpoodiac@norwich.edu
Problem Competition:	Jason Molitierno, Sacred Heart University MolitiernoJ@sacredheart.edu Rob Poodiack, Norwich University rpoodiac@norwich.edu

Message from the Chair.....Jason Moliterno

Greetings! I hope that everyone had a nice summer and that your semesters are going well.

It was great seeing so many of you at the Spring Meeting at St. Michael's College this past May. It was a fantastic meeting with many wonderful invited speakers, student papers, and contributed papers. I would like to take the time to thank the Local Arrangements Committee: *Joanna Ellis-Monaghan (co-chair), George Ashline (co-chair), Amy Adams, Karl-Dieter Crisman*; and the Program Committee: *Lloyd Simons (chair), Zsuzsanna Kadas, Greta Pangborn, Jim Hefferon*. Many thanks to the people who diligently served on these committees.

We are eagerly anticipating the upcoming Fall Meeting which will be held at Bentley College on November 21-22. Rick Cleary (Bentley College) is chairing the Local Arrangements Committee and Ann Trenk (Wellesley College) is chairing the Program Committee. It is shaping up to be an exciting meeting with many wonderful speakers lined up including David Bressoud (MAA President-Elect) and three relatively new faculty in our section from Project NExT. Other highlights of this meeting:

- Rob Poodiack (Norwich University) will be organizing the Third Annual Problem Solving Competition for undergraduates. Prizes will be given to the winning team. Anyone interested in fielding a team of undergraduate students from their institution should get in touch with Rob.

- David Carhart of Bentley College is the most recent winner of the NES/MAA Award for Distinguished College/University Teaching. He received his award at the Spring meeting and will be giving a talk at the Fall meeting – right on his home turf! Congratulations again to David Carhart.

- We will be conducting elections to elect the Secretary/Treasurer, Two-Year College Representative, and Vice-Chair. Note that the Vice Chair takes over as Chair in November 2009. Since these elections are so important to our section, we urge all members to attend the Fall Meeting.

- Karen Stanish (Keene State College) will be organizing the Section NExT workshop and luncheon which will take place on the Friday of the Fall Meeting. All untenured faculty members from our section are welcome to participate. Since our financial situation is so good, we will be waiving the registration fee for all Section NExT participants. (Note: Section NExT participants will still have to pay for Friday's dinner and Saturday's lunch.)

- In light of our positive financial situation, we will be embarking on a new initiative to get newer faculty to participate in NES/MAA events. All faculty who are first-time attendees will be eligible to take part in a drawing. We will draw ten winners; each winner will receive free registration and free meals for the Spring 2009 Meeting!

So as you can see, we have a lot of wonderful things taking place at the Fall Meeting at Bentley College. I encourage all faculty, especially newer faculty, to attend. I promise that you won't be disappointed!

There are many other events that are being planned for the upcoming year. They include:

- Simmons College is hosting a Dinner Meeting on October 27 where Christopher Danforth from the University of Vermont will speak on "Chaos and the Mathematics of Prediction: Hurricane Katrina, Harry Potter, and Happiness". This is a great opportunity to learn some very interesting mathematics and to socialize with other members of the Section. Visit the Dinner Meetings web page for details.

- The national Joint Meetings will be held in Washington D.C. on January 5-8, 2009. See the MAA website for more details.

- The Spring Meeting will be held at Fairfield University on May 29-30, 2009. Matt Coleman (Fairfield University) is the Local Arrangements Chair and Karen Stanish (Keene State College) is the Program Committee Chair. It is shaping up to be a fantastic meeting. More details will follow as time gets closer.

In the Spring Newsletter, I discussed the possibility of implementing on-line registration and payment for our section meetings. Ideally this would be available for the Fall meeting, but we are still working on that. We are confident that on-line registration and payment will be available within the next year.

Finally, if anyone has any ideas for what you like to see the Section offer, I would be happy to hear them. I hope to see many of you at Bentley College on November 21-22!

Message from the Governor..... Ockle Johnson

I hope everyone is having a good fall semester. I know Rick Cleary and the folks at Bentley University have been working hard on our fall Section meeting and I hope that you will join us.

This summer the Board of Governors met in Madison, Wisconsin prior to Mathfest. Overall we learned the MAA continues to be in good shape. Financially we are sound, although the budget deficit for 2007 of about \$278 is a concern. Investments were doing well relative to the market. Recently we heard from our Treasurer John Kenelly that our diversified and conservative investment strategy will serve us well in these challenging times. In particular, we are heavily invested in cash investments. Although we expect some losses, we are not vulnerable to the more risky investments that are currently in serious trouble. (You can get more details from Rick Cleary at the fall meeting.)

On the membership front we continue to look for ways to maintain our members and attract new members. Currently we are focusing on institutional memberships and how to best encourage and serve international members. If anyone has any thoughts, please let me know.

MAA is continuing with its strategic planning process. The board acted on some of the recommendations of the governance report, realigning the council and committee structure and setting up a committee to revise the bylaws. We also voted to have committee membership terms last 3 years and 1 month to allow for overlap of membership at the January meetings. During the current strategic planning cycle we are looking at Meetings, Sections, STEM issues and Publications.

On the publications front, Frank Farris has stepped back in to serve as interim editor of Math Magazine.

To keep up with what's happening in the MAA and the mathematics community in general, I encourage you to check out the MAA website regularly. It is frequently updated with interesting pictures, news items and columns.

If anyone has any issues they would like me to bring to the January Board of Governors meeting, please let me know.

I hope to see you at the fall section meeting at Bentley and at the Joint Meetings in Washington.

Message from the Secretary-Treasurer Ann Kizanis

In the Spring newsletter, I reported a balance of \$20,454.44. Since that time, the expenses from the successful Spring meeting at Saint Michael's College were \$3,386.35. We also spent \$173.00 on reimbursements for that meeting. The total expenses for the

Spring meeting were \$3,559.35, while the revenue from registrations was \$4,453.00. The expenses for the printing and postage of the Spring newsletter totaled \$1,624.38.

In the summer, we donated \$303.00 to the Paul Halmos River of Bricks. Moreover, we earned \$143.57 in interest since the last newsletter and received our subvention check in the amount of \$2,930.00 from the national office. The 13-month CD that I opened in the amount of \$12,000 last year has matured, and I have now opened a new 12-month CD in the amount of \$14,000 with APY 3.25% that will mature on October, 4, 2009. Our present balance is \$22,494.28.

The total expenses for our Spring meeting were \$1,127.14 less than our Fall meeting expenses, while the revenue from Spring meeting registrations was \$1,604.05 less than the revenue from Fall meeting registrations. The expenses for the postage and printing of our newsletter have increased only slightly from last fall. We spent \$1,536.75 for the printing and postage of the Fall 2007 newsletter and \$1,624.38 for the printing and postage of the Spring 2008 newsletter.

In the spring, I wrote and submitted the yearly Financial Report of the Northeastern Section of the MAA. I also wrote our section's Annual Report at the beginning of the summer.

That is my update for now! We are all looking forward to the Fall MAA meeting at Bentley University on November 21-22, where I will update you further on our finances.

I wish you all a very enjoyable fall semester!

Two-year College Representative's Report.....Lois Martin

Cape Cod Community College hosted an AMATYC and CAUSEway Summer Workshop "GAISEing Beyond the

Crossroads: Improving Instruction in Introductory Statistics" from June 16-20, 2008 in West Barnstable, MA. Presenters included Bob delMas, University of Minnesota and Mary Parker, University of Texas, Austin. Participants gained direct experience that will help them develop classroom activities and assessments that are aligned with both the ASA endorsed Guidelines for Assessment and Instruction in Statistics Education and recommendations in the AMATYC publication, Beyond Crossroads.

Middlesex Community College hosted another AMATYC SUMMER INSTITUTE, Mathematics Across the Community College Curriculum (MAC3), in Lowell, Massachusetts from July 15-18. The Institute, modeled after other national MAC3 programs, offered an overview of the numerous and diverse ways mathematics can be integrated with other disciplines. Session topics included: Service Learning and Community Engagement, Learning Communities Models, Developing Learning Outcomes and Pre/Post Assessments, and Spreading the MAC Word through Changing the Culture.

NEMATYC held a Fall Dinner Meeting in Wellesley on September 26. The speaker was Sir Isaac Newton (aka Chuck Straley, Wheaton College), ably assisted by Norman Johnson.

MATYCONN's Fall Meeting will be held on Friday, October 24th at Gateway Community College, New Haven, CT. The program features Marlene Megos Lovanio, Mathematics Consultant, Connecticut State Department of Education with "Functional Approach to Intermediate Algebra" and "Math in the Movies, Part 2" with Barbara Caserta, Mathematics Professor, Naugatuck Valley Community College.

AMATYC 2008 will be held November 20-23 in Washington, D. C., "A Monumental Place for Mathematics." Speakers include NES/MAA members Steve Krevisky and Lois Martin.

AMATYC's new cohort of **Project ACCESS** fellows includes

Mary Sullivan, Massasoit Community College and Meredith Watts, Mass Bay Community College.

From the Newsletter Editor Frank Ford

I hope I will see many of you at the fall meeting this year. Although we have met at Bentley College before, this will be our first meeting at Bentley University. When Rick Cleary sent the meeting schedule, he informed us of the name change.

Besides the excellent line-up of speakers, the chance to meet new colleagues and to enjoy a meal with friends, this is the meeting where we elect the next set of officers. We are fortunate that Ann Kizanis has agreed to stand again for Secretary-Treasurer. Unfortunately, Lois Martin has decided that since she will be retiring soon, she will also leave the two-year representative position. We will miss her on the Board. Phil Mahler has agreed to run for her position.

To succeed Jason Molitierno as Chair, we offer two excellent choices. Rob Poodiack of Norwich University and Karen Stanish of Keene State College are both familiar to us since they have worked to enhance our meetings for years. Whoever wins will make a good Chair.

But, the point is that you can't vote unless you come to the meeting. After you vote in that other election early in November, come up to Bentley and vote in ours.

**Undergraduate Student Papers Presented at the NES/MAA
Spring 2008 Meeting**

Subgraphs of a Complete Graph

Brian Tinger, Worcester State College

Building Graphical Complexes from DNA

Akie Hashimoto, Saint Michael's College

Forecasting in a Chaotic Toy Climate

Kameron Decker Harris, University of Vermont

The Potts and Ising Models of Statistical Mechanics

Eva Ellis-Monaghan, Villanova University

Contributed Papers Presented at the NES/MAA Spring 2008

Meeting

Constructing a Quadrilateral Inside Another One

Peter Ash*, Cambridge College; J. Marshall Ash, DePaul University;

Michael A.O. Ash, University of Massachusetts, Amherst

Dynamic geometry on sphere

Mohammed Salmassi, Framingham State College

Non-Euclidean Geometries in Art

Elizabeth Mathai, Norwich University

A simple model for intracranial hypertension and migraine

Scott Stevens, Champlain College

Optimum Reproductive Numbers for a Campus Drinking Model

A.Y. Aidoo*, Eastern Connecticut State University;

J.L. Manthey, Saint Joseph's College;

K. Ward, Eastern Connecticut State University

How Can We Help Students Become More FIT (Fluent in Information Technology) for Mathematics?

Donna Beers, Simmons College

Popescu's Conjecture in Multiquadratic Extensions

Jay Price (Graduate Student), University of Vermont (Jonathan Sands, advisor)

Election Information

At the business meeting on Saturday of the Fall meeting, the MAA/NES members present will elect a Vice-Chair, Secretary-Treasurer and Two-year Representative. The Secretary-Treasurer and Two-year Representative will serve as officers and on the Executive Board for two years. The Vice-Chair will serve on the Board as Vice-Chair for one year and will become Chair and serve

on the Board for an additional two years and then serve as Past-Chair on the Board for two more years. The nominating committee consisted of Jason Moliterno, chair of the committee, Ockle Johnson, Lois Martin and Frank Ford. The slate they have proposed with biographies is below. Nominations from the floor will be accepted at the meeting and in the case of contested elections, a secret ballot will be taken.

Candidates for Vice-Chair:

ROB POODIACK, NORWICH UNIVERSITY

Rob Poodiack is an Associate Professor at Norwich University, where he's been since 1999. He did his graduate work at the University of Vermont in analysis, but spends more time investigating technology in the classroom. An MAA member since 1997, Rob has been the Contributed Papers Coordinator for the section since 2004 and organized the Vermont dinner meeting this past year. He has also been the coordinator for the NESMAA Collegiate Mathematics Competition since its inception in 2006. Rob was the Local Arrangements Chair for the Spring 2001 meeting at Norwich and a co-presenter of the Summer 2002 Short Course. Rob served on the local arrangements committee for Mathfest 2002 in Burlington, VT. At Norwich, Rob is co-advisor of the student section of the MAA and has organized an Integration Bee to kick off Mathematics Awareness Month every April.

KAREN STANISH, KEENE STATE COLLEGE

Karen Batt Stanish, an assistant professor of mathematics at Keene State College, has been involved with the Northeastern Section since she entered the section in fall 2002. She was a Section NExT fellow from fall 2002 until she received tenure in spring 2008. She co-coordinated the Undergraduate Student Paper session from fall 2005 through fall 2007. Then in spring 2008, she took over coordination of the Section NExT program. She continues to coordinate the Section NExT activities and will also be the

program committee chair for the spring 2009 meeting. Karen greatly enjoys teaching undergraduate mathematics, and she pursues scholarship in this area. In addition, Karen also has research interests in the area of nonassociative algebra. Karen received her Bachelor of Science degree in Mathematics/Computer Science from Stonehill College and her Doctor of Philosophy in Mathematics from the University of Virginia. Outside of her mathematical life, Karen enjoys spending time with her family, reading, and attending Red Sox games.

Candidate for Secretary-Treasurer:

Ann Kizanis, Western New England College

Ann graduated with a B.A. in Mathematics from Connecticut College in 1985. During her time there, she received the Julia Welles Bower Prize for Excellence in Mathematics each year. She also received the Rosemary Park Fellowship for Teaching in 1985 and was named a Winthrop Scholar.

She did her graduate work at Wesleyan University in the area of archimedean lattice-ordered groups and graduated with a Ph.D. in 1991. She then began working as an Assistant Professor of Mathematics at Western New England College. She was granted tenure in 1995, was promoted to Associate Professor in 1996, and was promoted to Professor in 2004. While at Western New England College, she received the Teaching Excellence Award in 1995, as well as the Golden Bear Award, given in recognition of unselfish commitment to the student body at the college. Six years ago, Ann accepted the position of Associate Dean of the School of Arts and Sciences at the college. She continues to enjoy the challenges of this position, as well as the rewarding experiences she receives from teaching.

Ann has published papers on her area of interest, epicompletions of archimean lattice-ordered groups and enjoys her research area.

Ann remains very active in governance and department affairs at the college. She has been a member of many committees at the college during the last seventeen years. Among them, she served on the Faculty Senate for three terms, was chair of a retention task force, chair of the Carnegie Teaching Academy Campus Program, and for many years chair of the First Year Program Committee. She also served as advisor to the Math Club from 1992-2000.

Ann has been a member of the Mathematical Association of America since graduate school. She was a member of the Program Committee for the Fall Meeting of the NES/MAA that was held at Western New England College in 1997 and was also Publisher Liaison for the Spring Meetings in 1995, 1996. She has served as Secretary/Treasurer of the Northeastern Section of the Mathematical Association of America for the last eight years. Ann has learned a great deal during this time and enjoys working and interacting with members of the Northeastern section. She hopes to continue to serve the section and is really looking forward to being involved in the planning of the Fall Meeting that will be held at Western New England College in 2009.

In her free time, Ann enjoys traveling. She visits her relatives in Greece each summer. This year, she combined her trip to Greece with a week in southern Spain. She and her husband really enjoyed their trip to Granada, where they took a tour of the Alhambra. It was a wonderful experience for both of them, but especially for a mathematician! Ann was delighted she had the opportunity to visit this beautiful site.

Candidate for Two-Year Representative:

PHILIP MAHLER, MIDDLESEX COMMUNITY COLLEGE

Phil Mahler has taught mathematics at Middlesex Community College, Bedford, Massachusetts since 1982, and before that taught at a community college in Michigan.

He was a co-chair of the Michigan MAA section, and for the

Northeast MAA section has served as newsletter editor and program chair. He recently served on an MAA task force on governance, and serves on the MAA Consultants Committee and the MAA Investment Committee.

He is a past president of AMATYC, and NEMATYC. He has participated in activities at the national level on quantitative literacy and college algebra reform and was a co-PI on grants related to the recent updating of the AMATYC standards document. He currently serves as NEMATYC Historian and Newsletter editor. He is also currently treasurer and webmaster for the Massachusetts Community College Council (union for the 15 Massachusetts community college professionals).

Phil holds a BA in Modern Languages, German and Russian, from Assumption College, and, after service as an electronics technician in the Navy, he earned an MAT in Mathematics from the University of Florida

From the Colleges

Bard College at Simon's Rock (reporter William Dunbar) **Allen Altman** retired after 22 years of service. **Brian Wynne**, a 2005 Wesleyan Ph.D., joined the faculty.

Boston College (reporter Dan Chambers) **Ben Howard** and **Tao Li** received tenure and promotion to Associate Professor. **Jerry Keough** has retired. **Jay Pottharst** has begun a 3 year postdoc. **Sol Friedberg** has been appointed to a second two-year term as editor of the book series Issues in Mathematical Education. Wiley has published the third edition of Introduction to Linear Programming and Game Theory, by **Paul R. Thie** and **Jerry Keough**. **Avner Ash** has recently been appointed as an editor of the Journal of Number Theory. **John H. Conway** of Princeton gave 3 lectures as the first annual Boston College Distinguished Lecturer in Mathematics. **Martin Bridgeman** and **Tao Li** served on the organizing committee for the 4th William Rowan Hamilton Geometry and Topology Workshop held August 28-30, 2009 at Trinity College Dublin, Ireland. The workshop was co-sponsored

by Boston College, and included a wine reception at Boston College Centre for Irish Programmes in Dublin. The theme of this year's workshop was Heegard splittings, mapping class groups, curve complexes and related topics. Boston College and MIT will join forces this coming year to create a Number Theory Seminar series, with the goal of attracting number theorists from the greater Boston area and featuring important advances in modern number theory. See www.bc.edu/ntseminar

Eastern Connecticut State University (reporter Peter Johnson) **Steve Kenton** retired in Spring 2008. He was a member of the faculty for more than 35 years and was active in attending MAA meetings and taking students to them. He was the MAA liaison for many years. The College has opened a new Mathematics Achievement Center (MAC) with mandatory weekly attendance for students in developmental classes. Finally, the Department has moved into a brand new Science Building with our biological and chemical and physical science brethren. It is quite a nice place!

Fairfield University (reporter Matthew Coleman) The Department of Mathematics and Computer Science is happy to welcome two new assistant professors this year. **Shawn Rafalski** received his Ph.D. from U. Illinois-Chicago in 2007 and joins us after a one-year visiting position at Williams College. **Janet Striuli** earned her Ph.D. in 2005 from U. Kansas, and joins after having spent a three-year post-doc at U. Nebraska.

Framingham State College (reporter Sarah Mabrouk) We are delighted to welcome two new assistant professors, **Brooke Andersen** and **Sheree Arpin**, to the Department effective September 1, 2008. **Brooke Andersen** earned her Ph.D. in Mathematics from Dartmouth College and her B.S. in Mathematics from Centre College. Before attending graduate school she taught mathematics at Lexington High School for a year and a half. Brooke is a member of Project NeXT. **Sheree Arpin** earned her Ph.D. in Applied Mathematics from University of Arizona and her B.S. in Zoology and Applied Mathematics from the University of Rhode Island. Before coming to Framingham State College, she taught mathematics as an adjunct faculty member at the University of Arizona and as an associate faculty member at Cochise

Community College. **Ruth Hibbard** joins us as a part-time Instructor; she is teaching MATH 095 General Mathematics. Ruth is a 2008 graduate of Framingham State College. She earned her B.S. in Mathematics with a minor in Secondary Education and a minor in Spanish. **Joyce Cutler** and **Walter Czarnek** worked with teachers in the Southbridge Public Schools as part of an *Improving Teacher Quality Grant*. **Robert Page** has been working with Joe O'Brien at Keefe P. Technical School in Framingham, Massachusetts on developing a professional development course through Framingham State College's Division of Graduate and Continuing Education to train vocational school teachers in the use of technology in teaching mathematics. The course will begin on October 1, 2008. **Julie Levandosky** was awarded tenure effective September 1, 2008. **Sonja Sandberg** is on sabbatical for the 2008 – 2009 Academic year. She is in Shanghai, China teaching English as a second language. **Walter Czarnek** became Acting Chair of the Mathematics Department for the 2008 – 2009 Academic year effective July 1, 2008. **Thomas Koshy** will conduct an enhanced version of his minicourse, *Catalan Numbers and Their Applications*, during the Joint Mathematics Meetings in Washington, D.C. in January.

Lyndon State College (reporter Kevin Farrell). We welcome back **Daisy McCoy** from Sabbatical and our new Faculty Member **Dan Daley**, Assistant Professor, Mathematics/Developmental Math Coordinator. Dan returns to LSC from Lyndon Institute where he has taught math for many years. He worked at Lyndon State College as a learning specialist from 1992-1997; in addition, Dan is also an alum of Lyndon State College having earned a Bachelor of Science in mathematics and a Master of Education in Curriculum and Instruction, so he is very familiar with the campus. Dan has moved into the office formerly occupied by **Dr. John Muzzey**. John was a mentor for Dan, having taught him “all the math he knows”. Dan's first college math class was with Dr. Muzzey in 1977.

Massachusetts Maritime Academy (reporter Frank Battles) **Professor Eugene F. McCarthy** who retired from the Academy in 2003 passed away in June. He had been a mathematics professor

at the Academy since 1982 and had previously taught at Boston State College from 1965. An excellent teacher, Professor McCarthy earned a reputation for caring about students as individuals. He was honored as a Presidential Scholar at Boston College, as a National Science Foundation Fellow at Carnegie-Mellon University, and with the Distinguished Service Award at the Academy.

Merrimack College (reporter Michael Bradley) The College hired **Brandy Benedict** who earned her degree in applied mathematics in 2008 from North Carolina State University. She is a project NExT fellow.

Providence College (reporter Frank Ford) **Professor Rick Lavoie** retired in May after over 30 years of teaching at Providence College. The College hired **Asta Shomberg** who received her Ph.D. from the University of Wisconsin at Milwaukee in Statistics to replace him. The College also hired **Joseph Shomberg** who received his Ph.D. from the University of Wisconsin at Milwaukee in Analysis/Applied Mathematics. **Professor Jim Tattersall** had his Number Theory book translated into Japanese and published in Japan.

Regis College (reporter Barbara Loud) **Susan Williamson**, Professor Emerita, died in July. **Santhosh Matthew** is a new tenure track appointee.

Rivier College (reporter Teresa Magnus) It is with great sadness that we report the death of **Professor Stefan Ehrlich** on Friday, September 5, 2008. Stefan has been a faculty member at Rivier College since 1987 and had been hoping to teach this fall. He served as Chair of the Graduate Mathematics and Computer Science Department from 1987-1993.

Saint Michael's College (reporter George Ashline) We wish to thank the 70 or so participants that joined us for the Spring 2008 NES-MAA meeting which we hosted on May 30th and 31st. The conference theme was "Mathematical Modeling in Biology and the Environment" and talk titles/abstracts and other conference details are still accessible at

http://academics.smcvt.edu/MAA_NES_Spring2008_Meeting/index.htm. We have hired **Victoria Green**, MS, from University of

Vermont, as a full-time instructor for the current year. **Zsu Kadas** is on sabbatical for the current academic year, and **George Ashline** will be on sabbatical in the spring. **Greta Pangborn** (CS) is the PI, along with co-PIs **Mike Battig** (CS) and **Jo Ellis-Monaghan** (Mathematics), for a \$578,500 S-STEM NSF grant. The five-year grant will provide financial support to approximately 20 highly promising computer science and mathematics students who have financial need.

Smith College (reporter Katherine Halvorsen) The Smith College Department of Mathematics and Statistics announces their **Center for Women in Mathematics** is in its second year. The Center offers women with a bachelors degree the opportunity to study mathematics for one year in preparation for applying to graduate programs in mathematics. The Center also invites students with junior class standing to spend a year at Smith studying mathematics. Financial aid is available for both juniors and postbacs through a generous NSF grant. The Smith Center for Women in Mathematics sponsored a Women in Mathematics in New England Conference (WIMIN) on Saturday, Sept. 27 at Smith College. Eighty participants from thirty New England area schools heard eighteen student talks and faculty talks by **Jo Ellis-Monaghan** from St. Michaels College in Colchester, VT and **Ruth Charney** from Brandeis University in Waltham, MA. **Pau Atela**, faculty member in the Department of Mathematics & Statistics at Smith College, announced: "X = " an art + math participation; October 16 - 19, 2008, www.mathstudio.info. X is a site-specific participation and installation involving 16 artists and mathematicians working in 4 designed studio spaces to explore the creative process and dynamic communication between art and math, including image/blackboard projections and live stream video and television at APE gallery, 150 Main Street, in downtown Northampton, including public talk by world-renowned artist **Richard Tuttle**.

UMass-Boston (reporter Jack Lutts) Last year, the College hired **Timothy Killingback** who taught previously at William and Mary. His Ph.D. is from the University of Edinburgh and his research interests are in Mathematical Biology, Evolutionary Dynamics,

Dynamical Systems, and Game Theory. This year, the College hired **Eduardo Gonzales** who has a Ph.D. from SUNY-Stony Brook, an BS from the National Polytechnic of Mexico, and research interests in Symplectic Geometry, Algebraic Geometry, Gauge Theory, and Mathematical Physics. **Laura Gross** from Univ. of Ohio at Akron is a visiting professor with us for the academic year. Her Ph.D. is from the University of Vermont.

Worcester State College (reporter To Hansun) **Dr. Robert Perry** retired from the Mathematics Department as of May 31, 2008. He taught at Worcester State College for 44 years. Dr. Perry was recognized with faculty emeritus status. **Dr. Stephen Kunec** and **Mr. Timothy Hagopian** left the department to pursue careers as High school teachers. **Dr. Maria Fung** joins us after several years at Western Oregon University. Her mathematical interests include mathematics education (primary) and geometry (secondary). **Dr. Gabriel Katz** and **Ms. Eileen Perez** join us as full-time instructors for the current year. **Kenneth Sanderson**, a senior mathematics major, successfully completed a position in the Mathematics Summer Employment Program at the National Security Agency (NSA) during summer 2008.

Yale (reporter George Seligman) **Grigori Margulis** will be giving the Colloquium Lectures at the annual Joint Meetings in Washington in January, 2009. Visiting faculty 2008-9: **Ehud Hrswhovski**, **In-Sok Lee**, **Yoav Moriah**, **Nimish Shah**, **Nikola Lakic**.

New Gibb's Assistant Professors: **Tullia Dymarz**, **Matt Feiszli**, **Marketa Havlickova**, **Dan Kushmir**, **Jaejong Lee**, **Adam Wade Marcus**. **Professor Bruce Kleiner** has been appointed Senior Research Scientist for the year. He will be replaced as Director of Graduate Studies by **Professor Gregg Zuckerman**. **Professor Michael Frame**, who has been responsible for important and effective changes in introductory programs, has had to take a medical leave of absence for the fall term. We hope to have him back with us in the spring.

Northeastern Section NExT at Fall Meeting.....Karen Stanish

Friday, November 21, 2008

12 PM - 1 PM

Lunch

1 PM - 2 PM

**Using Mathematical Maturity to Shape
Our Courses, Our Curriculums and Our
Careers**

Thomas Garrity, Williams College

NES/MAA Award for Distinguished College/University Teaching of Mathematics

Here is information on the award. This year, Tommy Ratliff will be in charge of the award committee. His contact information is:

Tommy Ratliff
Department of Mathematics
and Computer Science
Wheaton College
Norton, MA 02766
(508)286-3968
tratliff@wheatonma.edu

There is no packet of forms to fill out in order to make nominations for the 2008 Northeastern Section of the Mathematical Association of America (NES/MAA) Award for Distinguished College or University Teaching of Mathematics: you create the nomination packet with various letters written by those familiar with the candidate's teaching/research/publications. The eligibility and nomination requirements as well as some hyperlinks to help you in creating the nomination packet are listed below.

The eligibility requirements are

- college or university teachers who currently teach a mathematical science at least half-time during the academic year in a public or private college or university in the United States or Canada (those on approved leave

(sabbatical or other) during the academic year in which they are nominated qualify if they fulfilled the requirements in the previous year),

- at least five years experience in teaching a mathematical science, and
- has membership in the Mathematical Association of America and is teaching in the Northeastern Section,

and the nomination requirements,

- widely recognized as extraordinarily successful in his/her teaching,
- has teaching effectiveness that can be documented,
- has influence in teaching beyond his/her own institution, and
- fosters curiosity and generates excitement about mathematics in students.

Nominations for the *2007 NES/MAA Award for Distinguished College or University Teaching of Mathematics* are due in January of 2008, and the winner of the Section's award for distinguished teaching is then nominated for the Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics. General information for the distinguished teaching as well as a list of past recipients of the award can be found on the Sections Awards page of the NES/MAA web site, http://fileserv.wheatonma.edu/tratliff/NES/teaching_award.html; more detailed information about the Section award, eligibility, and nomination process can be found on the MAA website, http://www.maa.org/Awards/CFN_Template.html. Information about the nomination process as well as about the National award can be found on the MAA website,

- <http://www.maa.org/Awards/teachingawards.htm>
- http://www.maa.org/Awards/Haimo_EGN.pdf (general guidelines/eligibility information)
- http://www.maa.org/Awards/Haimo_NF.pdf (Nomination Form).

The *typed* completed Nomination Form must accompany the nomination packet that you create and nominations should include no more than five letters of recommendation of no more than one

page each,

- two letters from present or former students
- two letters from colleagues one of whom could be the department chair, and
- one additional letter from anyone qualified to comment on extraordinary teaching success.

In addition to these letters, the nomination should include a narrative describing the nominee's background, experience, teaching style, special contributions, other teaching awards, evidence of unusual/extraordinary achievement/success in teaching; this narrative should be no more than five double spaced pages. Additional documentation on the nominee's teaching success including but not limited to summaries of peer or student teaching evaluations, comments on teaching, possible increases in the number of undergraduate/graduate degrees in mathematics directly related to the nominee, and student successes in mathematics competitions may be included on no more than three additional pages.

The Nomination Form,

http://www.maa.org/Awards/Haimo_NF.pdf contains a note that states that "if the nomination packet significantly exceeds the prescribed limits" then "it will not be eligible for consideration for a national award." Since the nomination packet for the Section award will be forwarded to MAA for consideration for the National award, it is important to consider this caution and not exceed "the prescribed limits."

The Third NES/MAA Collegiate Mathematics Contest

(Rob Poodiack is in charge of the Collegiate Programming Contest. You can register and see more information at his site: <http://www2.norwich.edu/rpodiac/NESMAA/mathcompetition.html>. The information below was taken directly from his site. The deadline for registration is November 2nd. –the editor.)

The Northeastern Section of the Mathematical Association of America will hold its third Collegiate Mathematics Competition on November 21st, 2008 at the

Fall Meeting at Bentley University. This will be a team competition for undergraduate students open to all colleges and universities of the Section. This will be great fun for first-time competitors as well as competition veterans. It can also be a great warm-up for the Putnam exam, which takes place a couple of weeks after the Collegiate Mathematics Competition. The questions are meant to be stimulating, but not as difficult as those on the Putnam exam.

The competition will take place during the Fall 2008 Section Meeting at Bentley University in Waltham, MA, on **Friday, November 21st from 2:00 to 4:00 p.m.** The competition stands at the center of a great day for students at the meeting, including opportunities to hear accessible talks by faculty and student speakers, and if desired, a banquet and after-dinner talk.

You can click the links above to see the official rules, some practice problems, and the questions and solutions for the inaugural competition. You can also look at the old practice problems, as well as register online (via an Adobe Reader form).

Winning teams will be announced and prizes awarded after the banquet. **Prizes include copies of Mathematica for Students (courtesy of Wolfram Research) and \$100 for the winning team, \$75 for the second place team, and \$50 for the third place team.**

Call for Undergraduate Presentations

Undergraduate students from the Northeastern Section are invited to present talks at the fall meeting on topics in mathematics, statistics, or computer science. The presentations should be 10 minutes in length, on expository work, research projects, employment experiences, or problems from mathematical periodicals. The registration fee and cost of meals will be waived for one student presenter per paper. Interested students should submit:

- the title of the presentation,

- an abstract of no more than 80 words,
- full name,
- email address,
- mailing address,
- college/university affiliation,
- indication of desire to attend the Friday Banquet, the Saturday lunch, or both,
- the name and email address of a faculty sponsor,

to Raimundo Kovac, rkovac@ric.edu, or Julie Levandosky, jlevandosky@frc.mass.edu; please use “NES/MAA Undergraduate Student Paper Session - Submission” for the subject line. The deadline for abstract submissions is November 7.

Student Papers Coordinators

Raimundo Kovac

Department of Mathematics and Computer Science

Rhode Island College

Providence RI 02908

rkovac@ric.edu

Julie Levandosky

Department of Mathematics

Framingham State College

100 State Street, P.O. Box 9101

Framingham, MA 01701-9101

jlevandosky@frc.mass.edu

Call for Graduate Student Papers

Graduate Students, full-time and part-time, are invited to present papers on topics in mathematics, statistics, or computer science. Graduate students at any stage of their graduate work are welcome to give a presentation during the session. The presentations, approximately fifteen (15) minutes in length, can be given on expository work, research projects, variations on intriguing proofs, interesting problems in mathematics, work derived from periodicals, employment experiences, summer/independent

research experiences, or parts of or work related to Master's or Doctoral research projects. The registration fee and the cost for Saturday lunch will be waived for one graduate student presenter per paper. Interested graduate students should submit the title of the presentation with an abstract of no more than 100 words together with full name, college/university affiliation, contact information (phone number, fax number, and email address), audio-visual/technology needs for the presentation, the name of a faculty sponsor, and full contact information and affiliation for the faculty sponsor to Sarah Mabrouk, smabrouk@frc.mass.edu; please use "NES/MAA Graduate Student Paper Session - Submission" for the subject line. Abstracts should be submitted via email in MS Word or plain text files; please do not submit abstracts using LaTeX or other typesetting software. Abstracts should be appropriate for a general mathematics audience; please avoid using mathematical symbols in the abstract and remember to include the presentation title. The deadline for submission is Friday, November 7, 2008.

Call for New Faculty Papers

New faculty participating the Northeastern Section Fall MAA meeting are invited to submit papers for the New Faculty session. The purpose of these talks is to introduce you to the section. These talks should focus on either your research or pedagogical activities. If you are giving a talk on your research, please remember that there will be people in the audience that are unfamiliar with your research area so it might be helpful to give some background and motivation. Your presentations should be approximately 15 minutes in length. Overhead projectors and computers with projection capabilities may be available.

Please send a 25 word or less abstract, any special equipment needs you may have and your mailing address to Phil Hotchkiss at phothchkiss AT wsc.ma.edu or Chris Aubuchon at Christopher.Aubuchon AT jsc.edu. Email submissions are preferred, but you may also send a typed submission to

Phil Hotchkiss
Department of Mathematics
Westfield State College
Westfield, MA 01086

or

Chris Aubuchon
Department of Mathematics
Johnson State College
337 College Hill
Johnson VT 05656

The deadline for submission of abstracts is November 1.

Call for Contributed Papers

Participants at the Fall Meeting of the section are invited to submit contributed papers. We are particularly interested in papers which will appeal to a variety of participants. If you are planning to speak about results of your research, keep in mind that the audience most likely will not be familiar with your specialty, so you will want to give some motivation and context for your work. Your presentation should be approximately 15 minutes in length.

Please send an abstract and your mailing address together with a list of any special equipment you may need to Rob Poodiack at rpoodiac@norwich.edu. E-mail submissions are preferred, but you may also send a typed submission to

Rob Poodiack
Department of Mathematics
Norwich University
158 Harmon Drive
Northfield, VT 05663

The deadline for submission of abstracts for the Fall 2008 Meeting at Bentley College is November 7th, 2008.

Presenters must also have their registration submitted to Bentley College by that date.

**BENTLEY UNIVERSITY, WALTHAM , MA
53RD FALL MEETING OF NES/MAA**

**Friday, November 21, 2008 Northeastern Section NExT
Program**

12 PM - 1 PM

Lunch

1 PM - 2 PM

**Using Mathematical Maturity to Shape
Our Courses, Our Curriculums and Our
Careers**

Thomas Garrity, Williams College

NES/MAA 53rd Meeting

Friday, November 21, 2008

2:00 - 6:00 pm

Registration

Adamian Academic Center Lobby

2PM – 2:50 PM

Executive Committee Meeting

Adamian Academic Center

2 PM - 4:00 PM

Student Problem Solving Competition

3 PM - 3:50 PM

Workshops:

Lurch: Software for Teaching

Mathematical Proofs

Nathan Carter, Bentley University

**An Introduction to the Mathematics of
Options Pricing**

Norman Josephy and Victoria Steblovskaya

4 PM - 4:50 PM

The Mathematics of Fairness

Allison M. Pacelli, Williams College

5 PM - 5:50 PM

Student Papers

6 PM - 7:30 PM

Reception and Banquet

8 PM - 8:50 PM

Distinguished Teacher Lecture:

Motivating the Non-Math Major

David Carhart, Bentley University

Saturday, November 22, 2008

8 AM – 1:00 PM

Registration

Adamian Academic Center Lobby

8:30 AM - 9:20 AM

New Colleagues Paper Session

Contributed Paper Session

- 9:30 AM - 10:20 AM **Symmetries in Geometry: Exploring (different) constant curvature spaces**
Megan Kerr, Wellesley College
- 10:30 AM - 11:00 AM **Break/Refreshments**
- 11 AM - 11:50 AM **Christie Lecture: Calculus as a High School Course**
David Bressoud, Macalester College
- NOON – 12:30 PM **Business Meeting**
- 12:30 PM - 1:30 PM **Lunch**
- 1:30 PM - 2:20 PM **Workshop: Improving College STEM Teaching & Learning via an Interactive Series of Professional Development Seminars for faculty**
Christos Zahopoulos,
Northeastern University
- 2:30 PM - 3:20 PM **Hypergeometric Functions**
Sharon Frechette, College of the Holy Cross
- 3:30 PM - 4:20 PM **Contributed Papers**

Program Committee:

Ann Trenk (Chair), Wellesley College
Rick Cleary (Local arrangements chair), Bentley University
Steve Abbott, Middlebury College
Lucy Kimball, Bentley University
Ismar Volic, Wellesley College,
Meredith Watts, Mass Bay Community College

Local Arrangements:

Rick Cleary (Chair), Bentley University, (781) 891-2702
Lucia Kimball, Bentley University
Nathan Carter, Bentley University

Abstracts/Biographies

David Bressard

Calculus as a High School Course

Abstract: Over the past quarter century, 2- and 4-year college enrollment in first semester calculus has remained constant while high school enrollment in calculus has grown tenfold, from 50,000 to 500,000, and continues to grow at 6% per year. We have reached the cross-over point where each year more students study first semester calculus in US high schools than in all 2- and 4-year colleges and universities in the United States. There is considerable overlap between these populations. Most high school students do not earn college credit for the calculus they study. This talk will present some of the data that we have about this phenomenon and its effects and will raise issues of how colleges and universities should respond.

Biography: David Bressoud is DeWitt Wallace Professor of Mathematics at Macalester College and President-Elect of the Mathematical Association of America. He served in the Peace Corps, teaching math and science at the Clare Hall School in Antigua, West Indies before studying with Emil Grosswald at Temple University and then teaching at Penn State for 17 years. He chaired the Department of Mathematics and Computer Science at Macalester from 1995 until 2001. He has held visiting positions at the Institute for Advanced Study, the University of Wisconsin-Madison, the University of Minnesota, Université Louis Pasteur (Strasbourg, France), and the State College Area High School. David has received the MAA Distinguished Teaching Award (Allegheny Mountain Section), the MAA Beckenbach Book Award for *Proofs and Confirmations*, and has been a Pólya Lecturer for the MAA. He is a recipient of Macalester's Jefferson Award. He has published over fifty research articles in number theory, combinatorics, and special functions. His other books include *Factorization and Primality Testing*, *Second Year Calculus from Celestial Mechanics to Special Relativity*, *A Radical Approach to Real Analysis* (now in 2nd edition), *A Radical*

Approach to Lebesgue's Theory of Integration, and, with Stan Wagon, *A Course in Computational Number Theory*.

David has chaired the MAA special interest group, Teaching Advanced High School Mathematics as well as the AP Calculus Development Committee and has served as Director of the FIPSE-sponsored program *Quantitative Methods for Public Policy*.

David Carhart

Motivating the Non-Math Major

Abstract: All math instructors share a desire of motivating their students with a goal of having them acquire an appreciation for mathematical concepts, techniques and applications. In short - to learn! But learning is based on retention and retention is based on student interest. And the two keys to sparking student interest are relevance and involvement. This talk will focus on relevance and involvement in the light of course goals through a discussion of several examples taken from a freshman calculus sequence. Remembering that sparking student interest is a function of not only what material is presented but also how that material is presented, the presentation will conclude with a set of recommendations for faculty teaching undergraduate non-math majors.

Biography: Dr. David H. Carhart is a professor of Mathematical Sciences at Bentley University in Waltham, MA. He received his undergraduate degree in chemistry from the University of North Carolina in 1972 and his MBA and DBA, both in operations research, from the George Washington University in 1975 and 1983, respectively. He recently completed five years of service as a Wilder Teaching Professor based on a generous donation from the Wilder family. His research focuses in three areas:

1. multi-disciplinary applications in traditional math courses such as calculus,
2. the role of singularities in managerial forecasting, and
3. teaching techniques that enhance student learning.

Allison M. Pacelli

The Mathematics of Fairness

Abstract: How do you divide a candy bar fairly between two people? The most popular solution is known by many and can even be found in the Bible: one person divides the bar in half, the other gets to choose which piece she wants. But what happens if three people are dividing the candy? Worse yet, what do you do if you're dividing a collection of indivisible goods? Things like TV's and pianos are not much use cut in half! The idea of fairness itself is considerably more complicated when more than two people are involved, but mathematics can be surprisingly useful in these situations.

Biography: Allison M. Pacelli is an Assistant Professor of Mathematics at Williams College. She earned her B.S. in mathematics from Union College in 1997, and her Ph.D. in algebraic number theory from Brown University in 2003. While at Brown, she worked as a teaching consultant and teaching fellow at the Sheridan Center for Teaching and Learning in Higher Education. She was also the recipient of the Presidential Award for Excellence in Teaching and the Mathematics Department Outstanding Teaching Award. Allison is a member of Project NExT. In addition to doing research in algebraic number theory, she is also the co-author (with Alan Taylor) of the book *Mathematics and Politics: Strategy, Voting, Power, and Proof* (Springer, 2nd edition).

Megan Kerr

Symmetries in geometry: Exploring (different) constant curvature spaces

Abstract: Geometers study shapes: shapes of surfaces. Differential geometry has applications to a wide arena of problems, from cosmology (e.g. the shape of the universe) to biomechanics (e.g. the shape of red blood cells). The curvature of a surface measures the shape, determined by a metric. For example, the curvature of a small round sphere is greater than that of a big round sphere --- a sphere with a very large radius looks flat (zero curvature). Just as there are infinitely many ways to bend and stretch a surface

without making holes or creases, there are infinitely many metrics on a surface.

What are the best metrics? For a two-dimensional surface, where there is only one notion of curvature, the metrics of constant curvature are the nicest. For a higher dimensional surface, called a manifold, we need to generalize our concept of curvature. No single measurement of curvature tells the whole story, even at one point. Sectional curvature assigns a value to each two-dimensional subspace (called a section) of the tangent space at a point. Ricci curvature assigns a value to each tangent vector, by averaging sectional curvatures. Scalar curvature assigns a value to each point, by averaging the Ricci curvatures.

I consider a special class of manifolds with a high degree of symmetry. Happily, these symmetries arise naturally. They not only represent beautiful geometry, but also carry additional algebraic structure. I will talk about what happens when we vary the shape of a given manifold, controlling the variations so that the symmetries---or most of them---remain. The goal is to find new examples with special curvature constraints.

Biography: Megan Kerr is an Associate Professor at Wellesley College. Before coming to Wellesley, she spent two years as a J.W. Young Research Instructor at Dartmouth College. A Project NExT fellow in 1997-98, Megan enjoys sharing her enthusiasm about mathematics with her students. Megan has been a fellow at the Radcliffe Institute, a visitor at Brown University and visiting professor at the University of Arizona.

Megan's research area is Riemannian geometry, especially the interplay of geometry and Lie groups. She is interested in finding new examples of spaces with special geometric features on spaces with a high degree of symmetry.

Sharon Frechette

Hypergeometric Functions

Abstract: A hypergeometric function is a power series $\sum c_n z_n$ of one complex variable, in which the ratio of successive coefficients c_{n+1} / c_n is a rational function of n . Classical hypergeometric functions were studied by the likes of Euler, Gauss, Kummer and

Riemann, beginning in the early 18th century, and satisfy many beautiful identities and transformation properties. They are versatile functions with numerous applications. For instance, depending on how we specialize their parameters, they may give solutions to differential equations, expressions for Bessel functions or orthogonal polynomials, or periods of elliptic curves. Hypergeometric functions defined over finite fields were introduced in the 1980's, and have proven to be just as intriguing as their classical cousins. Among other things, they have been used to count points mod p on elliptic curves, and to give interesting congruences for Ramanujan's tau-function. In this talk, we will explore some of these fascinating properties, both for the classical and finite-field hypergeometric functions.

Biography: Sharon M. Frechette is an Associate Professor of Mathematics at the College of the Holy Cross. She holds a B.A. in mathematics from Boston University, and an A.M. and Ph.D. in mathematics from Dartmouth College. Before arriving at Holy Cross, Sharon spent three years at Wellesley College, as a visiting professor. She has also spent time as a Visiting Scholar at Brown University and at MIT. Sharon is a Project NExT fellow (1997-1998 "peach dot"), and she enjoys teaching innovative courses such as her current freshman seminar: "The Mathematics of Art and Architecture." Sharon's research is in number theory, particularly in modular forms and special values of related functions. She has recently collaborated on research projects in multiple Dirichlet series, and in finite-field hypergeometric functions

Nathan Carter

Lurch: Software for Teaching Mathematical Proofs

Abstract: Word processing software verifies spelling with a "spell-checker." So why do mathematical word processors have no general-purpose "math checker" to verify users' work? The answer is that building one is a nontrivial task! But the Lurch project aims to do just that. The Lurch team is finishing the first of three years of development.

Lurch will be a mathematical word processor in which users will

choose which rules and theorems they wish to use, and Lurch will only allow them to manipulate mathematical expressions according to those rules and theorems. Instructors choose a starting set of foundational rules, and add the theorems needed in their particular course or assignment. Then they can assign students homework to be done using those rules, in Lurch. The students guide Lurch in the application of those rules. Lurch handles the mechanics and the students provide the understanding and insight. Although particularly intended for proof-based courses, this design can also incorporate computational work.

Participants in this workshop will

- get hands-on experience with the current state of the software, from both students' and instructors' viewpoints,
- receive instruction on how to integrate Lurch into their courses,
- hear where the project intends to go in the next two years, and
- be able to influence the future of the project by giving their opinion on changes, enhancements, and new features.

Biography: Nathan Carter is an Assistant Professor at Bentley University, where he has been since earning his Ph.D. in mathematics from Indiana University in 2004. While at Indiana University he also earned a masters in computer science, and most of his research focuses on where mathematics and computer science intersect, often putting computers to work in service of mathematics.

His software Group Explorer for visualizing group theory laid the groundwork for the book Visual Group Theory, to be published in 2009 by the MAA. He is a 2007 recipient of Bentley's Innovation in Teaching Award, for the game Metal and Money, which presents the users puzzles whose solutions are isomorphic to proofs in propositional logic.

His current project is Lurch, software for teaching mathematical proofs, supported by a grant from the Course, Curriculum, and Laboratory Improvement program of the National Science Foundation.

Christos Zahopoulos, Northeastern University
Improving College STEM Teaching & Learning via an
Interactive Series of Professional Development Seminars for
faculty

Abstract: With NSF support, a twelve-hour long series of professional development seminars titled “The Latest Research on How People Learn and Implications to University Teaching & Learning” has been developed and conducted for University and Community College STEM faculty over the past two years. The seminars are based on the Teaching & Learning research summarized in the National Research Council’s book “How People Learn: The Brain, the Mind and School.” They aspire to make STEM faculty more aware of research-based effective teaching & learning techniques and to help them implement them in their classrooms, ultimately changing the way they teach. Details on the approach taken and some preliminary findings will be shared.

Hotel Information

The DoubleTree Suites Hotel, 550 Winter Street, Waltham

\$99 per night plus taxes.

Phone 781-890-6767

Home Suites Inn, 455 Totten Pond Road, Waltham

\$75 per night plus taxes

Phone 866-335-6175

If you have questions about registration, you can contact the Bentley Department of Mathematical Sciences by phone at (781) 891-2702, or Rick Cleary by email, rccleary@bentley.edu.

Checks should be made to: **NES/MAA** and mail form to:

NES/MAA Registration

Mathematical Sciences Department

Bentley College

Waltham, MA 02452

PRE-REGISTRATION FORM(please type or print):

Name:

Name as you want it to appear on your name badge:

Affiliation:

Address:

Telephone:

E-mail:

Pre-registration Fee:

Waived for Section NExT attendees, check here if attending Section

NExT: _____

MAA Member (\$25.00) Non-member (\$30.00) Student or unemployed (\$10.00) \$_____

Meals:

Friday Banquet- Italian buffet with vegetarian options (\$30.00 per person) \$_____

Saturday Luncheon- Sandwich buffet, beverages and dessert (\$14.00 per person) \$_____

Total \$_____

Optional: Please provide the following demographic information, which the MAA Committee on Section will use to help formulate policy on section meetings.

_____ College faculty member _____ Graduate Student _____

High School teacher

_____ Undergraduate student _____ Mathematician in Business, Industry or Government

For college faculty, what is the highest degree offered by your department?

_____ Associate _____ Bachelor _____ Master _____ Doctorate

Frank Ford
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